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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,499	01/15/2004	C. Edward Baxter JR.	506431-0032	5964

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EXAMINER

CHEUNG, WILLIAM K

ART UNIT PAPER NUMBER

1713

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/758,499	Applicant(s) BAXTER ET AL.	
	Examiner William K Cheung	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/29/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0329</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitations of the processing steps in claims 1-4 do not seem to be in logical order. One of ordinary skill in art would not be able to carrying the invention because the metes and bound of the claims are not clear.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

Art Unit: 1713

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,525,149. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process invention of claims 1-20 of instant application is merely a rearrangement of claims 1-10 of U.S. Patent No. 6,525,149.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Baxter, Jr. et al. (US 6,525,149 B1).

*The invention of claims 1-3 relates to a **method for olefin polymerization** comprising:*

*providing a reactor system including a **plurality of reactors**, each said reactor defining an **internal reaction zone**;*

*conducting an **exothermic olefin polymerization** reaction on an olefin polymerization reaction mixture in each reaction zone;*

*supplying an **olefin containing feedstock** and **dividing the same** into a plurality of separate feedstock streams;*

*introducing a **separate one of said olefin containing feedstock** streams into the reaction zone of each reactor;*

Art Unit: 1713

separately circulating the reaction mixture in each reactor at a flow rate that is independent of the rate of introduction of the respective stream of feedstock into the reaction zone;

removing a crude polyolefin product stream from each of said reactors; and combining said crude polyolefin product streams to form a single crude product stream.

The invention of claim 4 relates to a method for conducting an olefin polymerization reaction comprising:

recirculating an olefin polymerization reaction mixture in a reaction zone of an olefin polymerization reactor;

introducing an olefin containing feedstock into said recirculated olefin polymerization reaction mixture, said olefin polymerization reaction mixture being recirculated at a flow rate which is independent of the rate of introduction of said feedstock into said zone;

introducing a catalyst composition comprising a catalyst and a catalyst modifier into said reaction mixture;

subjecting said polymerization reaction mixture to exothermic olefin polymerization reaction conditions in said zone in the presence of said catalyst composition; and

introducing a catalyst modifier into said recirculating olefin polymerization reaction mixture at a rate which is independent of the rate of introduction of said catalyst composition into said zone.

The invention of claims 5-20 relates to a **liquid phase polymerization process** for preparing **polyisobutylene**, said process comprising:

providing a feedstock comprising **isobutylene**;

providing a catalyst composition comprising a **complex of BF_3** and a **complexing agent**;

introducing said **feedstock and said catalyst composition** into a reaction mixture in a reaction zone;

intimately intermixing said reaction mixture, said reaction mixture, said feedstock and said catalyst composition to present an intimately intermixed reaction admixture in said reaction zone;

maintaining the intimately intermixed reaction admixture in its intimately intermixed condition while the same is in said reaction zone, to thereby cause the isobutylene therein to undergo polymerization to form polyisobutylene;

introducing an additional amount of said complexing agent into said intimately intermixed reaction admixture at a **rate which is independent** of the rate of introduction of said catalyst composition; and

withdrawing a product stream comprising polyisobutylene from said reaction zone.

Art Unit: 1713

Baxter, Jr. et al. (col. 18, claims 1-10) claim the polymerization of isobutylene comprising a liquid feedstock providing a catalyst composition comprising a stable complex of BF₃ and a complexing agent. Further, the process involves maintaining the recirculating intimately intermixed reaction admixture in its intimately intermixed condition, and withdrawing the product from the reaction zone. For performing the polymerization process, Baxter, Jr. et al. (Figure 1) disclose an apparatus that is substantially to apparatus being claimed (specification, Figure 1). Because Baxter, Jr. et al. clearly teach all the embodiment of claims 1-20, the invention of claims 1-20 is anticipated.

Regarding claims 1-4, because of the indefiniteness of the claims, the sequences of the recited steps have not been considered.

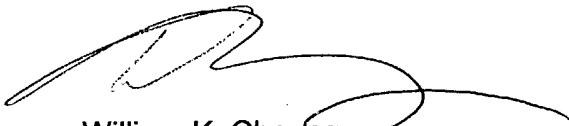
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

Art Unit: 1713

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'William K. Cheung', with a large, stylized flourish extending from the end of the signature.

William K. Cheung

Primary Examiner

May 16, 2004